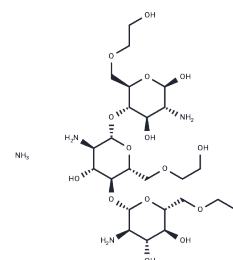


Glycol chitosan

Chemical Properties

CAS No. : 123938-86-3
Formula:
Molecular Weight:
Appearance: no data available
Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	Glycol chitosan is a chitosan derivative with hydrophilic ethylene glycol branches. Glycol chitosan inhibits E. coli, S. aureus, and S. enteritidis growths (MICs: 4 µg/mL, 32 µg/mL, and <0.5 µg/mL). It enhances membrane permeability and leakage in Glycine max Harosoy 63W cells.
Targets(IC50)	Antibacterial
In vitro	The hydrophobic modification of Glycol chitosan has been validated, with derivatives such as Glycol chitosan with a 5β-cholanic acid moiety and deoxycholic acid-Glycol chitosan, capable of self-assembling into nanoparticles, demonstrating potential as carriers for hydrophobic drugs and genes [2]. Glycol chitosan can be covalently bonded with hydrophobic drugs to create amphiphilic compounds that form nanoparticles (NPs) useful in cell imaging and drug delivery. These derivatives are effectively utilized to transport antimicrobial and anticancer agents, employing either physical encapsulation or chemical conjugation methods. Glycol chitosan derivatives are advantageous for cell imaging and drug delivery due to their exceptional tumor-targeting capabilities stemming from the enhanced permeability and retention (EPR) effect, minimal cytotoxicity, chemical modifiability, high biocompatibility, and degradability [1].

Solubility Information

Solubility	H2O: 7.5 mg/mL, Sonication is recommended. DMSO: 11.67 mg/mL, Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
------------	--

Reference

Lin F, et al. Glycol Chitosan: A Water-Soluble Polymer for Cell Imaging and Drug Delivery. *Molecules*. 2019 Nov 29; 24(23). pii: E4371.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only. Not for Human or Veterinary or Therapeutic Use

Tel: 781-999-4286 E_mail: info@targetmol.com Address: 36 Washington Street, Wellesley Hills, MA 02481